Message

From: Washington, John [Washington.John@epa.gov]

Sent: 12/18/2019 12:26:50 PM

To: Strynar, Mark [Strynar.Mark@epa.gov]; Risen, Amy J [amy.risen@ncdenr.gov]

Subject: RE: PFAS in soil

Attachments: Rankin et al 2016 Chemosphere Global PFCs.pdf; Rankin et al. SI.pdf; 191218 EPA-ORD SOP Soil PFAS Extraction.pdf

Hi Amy,

When we are trying to achieve low detection limits for PFAS in soil, we extract the soil in triplicate and extract several process blanks, then calculate t statistics on the analytical data to determine our detection limits, unique to each sample/analyte. We used this method in a global survey of background soils (Rankin Chemosphere attachment), achieving PFOA detections as low as about 9 pg/g, parts per trillion in the dry soil (Supporting Info Tables). This is burdensome to perform but effective for low concentrations.

I am attaching the SOP of the method that the article summarizes.

Let me know if you have any questions.

Happy holidays, John

From: Strynar, Mark <Strynar.Mark@epa.gov> Sent: Monday, December 16, 2019 2:53 PM To: Risen, Amy J <amy.risen@ncdenr.gov>

Cc: Washington, John < Washington. John@epa.gov>

Subject: RE: PFAS in soil

Its been along time since I did soil however here were my LOQs (~0.5 ng/g for all PFAS we tested). My colleague John Washington at EPA Athens, GA likely has more soil info as well.

Mark

Mark

From: Risen, Amy J < Amy.Risen@ncdenr.gov>
Sent: Thursday, December 12, 2019 2:42 PM

To: Strynar, Mark <<u>Strynar.Mark@epa.gov</u>>; Sivertsen, Scott <<u>Sivertsen.Scott@epa.gov</u>>; Jannie Shaw-Busby

<jls@gel.com>; Martin, Allen D <Allen.Martin@ncdenr.gov>

Subject: PFAS in soil

I'm looking for currently achievable reporting limits for PFAS in soil in order to support some ongoing work. This includes both the legacy PFAS and Chemours-related PFAS. Do any of you have information on what lowest levels are achievable and/or supporting SOPs that you can share?

Thanks!

Amy

Amy Risen, PhD

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